



 **ECOTREAT**



UV DISINFECTION SYSTEM

for Drinking Water



ECOTREAT UV

the ultraviolet Specialist in microbiological water treatment using ultraviolet reactors., developed a concept for chlorine-free water treatment based on disinfection technology using type C ultraviolet light. Water intended for human consumption can contain pathogenic microorganisms. The ECOTREAT UV Sterilizer is used to make raw water coming from local drinkable resources, water in the system safe to drink.



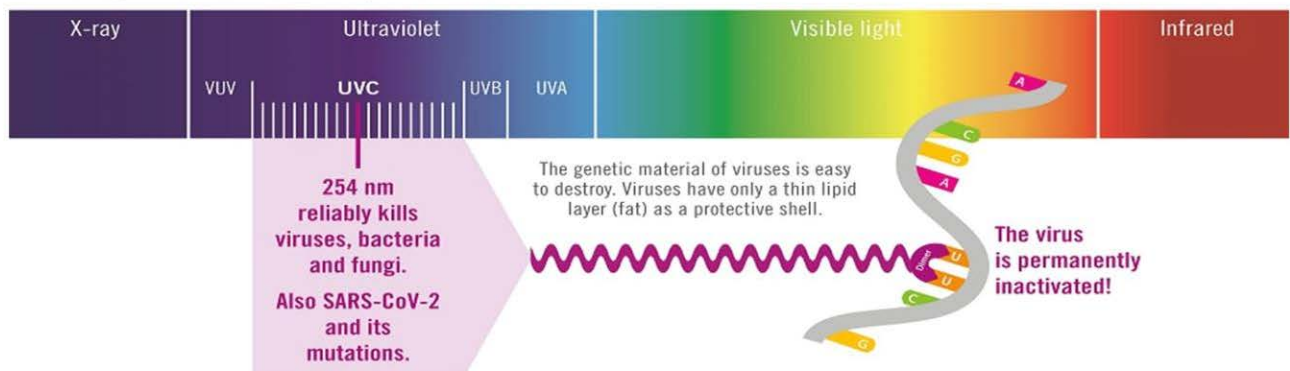
UV Disinfection Principle

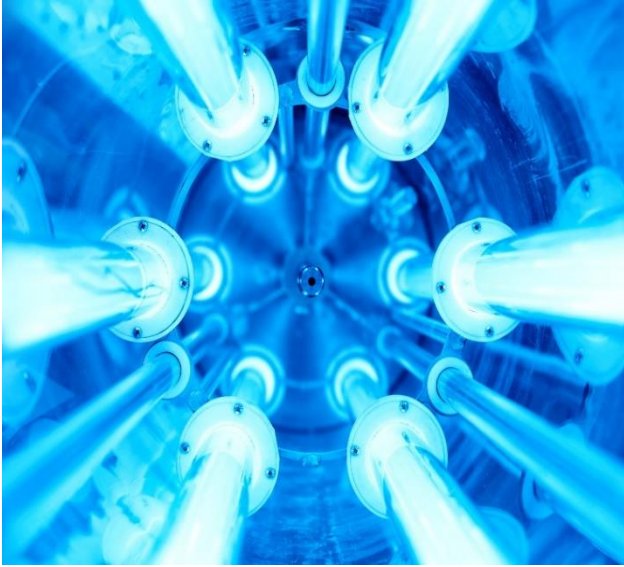
The sun emits invisible light: ultraviolet light. This natural phenomenon is reproduced inside the reactors by using powerful lamps.

UV treatment of microorganisms is considered to be one of the most effective disinfection techniques against bacteria, viruses, algae, yeasts, and mold including Legionella. Exposure to UV radiation is a physical treatment that destroys the microorganisms using light from the UV-C spectrum, particularly at wavelength 254 nm, at which effectiveness is maximal. The nucleic acids (DNA and RNA) of the microorganisms are damaged by the UV radiation from the lamps, causing their immediate destruction.

UV-C light is part of the natural light spectrum

A wavelength of 254nm is reliably suitable for disinfection





Action

At the wavelength 254nm, the UV-C penetrate the DNA heart and eradicate micro-organisms (viruses, bacteria, algae, yeasts, mould, including Legionella, Cryptosporidium, Giardia, and Toxoplasma that are hardly destroyed by ozone and not at all by chlorine at standard doses), destroying cell metabolism until they are destroyed. Thus, all germs are deactivated and cannot reproduce.

The effective dose

The reactors of the BIO-UV Group ranges are dimensioned according to the pump flow rate, as it is the combination of the contact time in the reactor and the power of the lamp(s) that will ensure the necessary dose (expressed in millijoules per square centimeter or mJ/cm^2) sufficient to kill **99.9% of the micro-organisms**.



Benefits ECOTREAT UV

- ✦ The ECOTREAT UV has been designed to the latest high-tech and highest specifications according to international standards.
- ✦ Easy and quick installation
- ✦ High grade SS304 chamber, SS316 option
- ✦ Low operating and maintenance costs
- ✦ Ballast with lamps fault indicator.
- ✦ Low power consumption
- ✦ Vertical or horizontal installation of the reactor

Advantages

- ✦ Compact reactor, easy to install.
- ✦ Simple and economical technology regarding investment and operation.
- ✦ Option: UV intensity sensor.
- ✦ Excellent disinfecting performance by optimization of UV emissions and hydraulic flow.
- ✦ Use of single-base lamps, patented sealing system, and vertical design for easy maintenance.
- ✦ Lamp life optimized: 13,000 hours depending on the number of switching on.

Application

You can use a ECOTREAT UV system in a lot of application. Below just some examples.



✦ Drinking Water



✦ Food & Beverage



✦ Hotel Water Amenities



✦ Swimming pools



✦ Pharmaceutical Industry



✦ Water Fountains



✦ Aquariums



✦ Industrial Water

